



YFW

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Date: May 11, 2007

To: Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Subject: Misdirected Mail for US
Application No. 10/740,262

The above-referenced firm is returning the enclosed Office Action which was received on May 9, 2007. Please note that we are not attorneys of record in the above listed case.

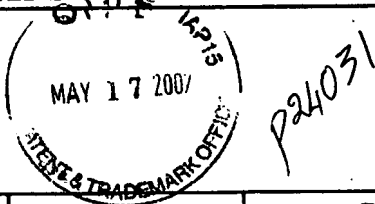
Signed: 

Ag No. 33,097



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,262	12/18/2003	Thomas J. Anderson	58716US002	1910

32692 7590 05/01/2007
3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

RECEIVED

MAY 09 2007

GREENBLUM & BERNSTEIN PLC

EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	05/01/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 05/01/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com



Office Action Summary

Application No.

10/740,262

Applicant(s)

ANDERSON ET AL.

Examiner

Michael A. Marcheschi

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/3/06 AND 5/10/06.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
4a) Of the above claim(s) 30-58 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/10/04, 8/12/04, 10/29/04, 12/7/04
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Application/Control Number: 10/740,262
Art Unit: 1755



Page 2

Applicant's election of group I, claims 1-29 in the reply filed on 1/3/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 is indefinite because the preamble recites "a method for making fused polycrystalline material" however, the starting material for the claimed process is a fused polycrystalline material, thus the claim does not clearly define a fusing step.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 1755

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 01/56947.

WO 01/56947 teaches on page 4, line 10, page 8, lines 1-25, page 9, lines 25-30, page 11, lines 3-30, page 12, lines 5-10, page 19, lines 8 and the claims, fused polycrystalline particles comprising an aluminum oxide/yttrium oxide complex (the complex has a garnet or perovskite structure and contains crystals having a dendritic structure-up to 1 micron). The aluminum oxide used is transitional alumina. The fused material has an aluminum oxide content of at least 50, 60, 70 or 80 weight percent. The amount of yttrium oxide can be calculated from the balance of the particles. The particles have the claimed specified nominal grades.

The claimed invention is anticipated by the reference because the reference teaches fused polycrystalline particles which comprises all of the claimed components. The reference uses transitional alumina and thus, in the final product, some of the alumina will still be in the transitional form absent evidence to the contrary.

In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention absent evidence to the contrary because the reference states on page 11, lines 15-16 that the eutectic is made up of an alumina phase and this implies any alumina phase making transitional alumina obvious. Assuming arguendo about the size of the dendritic crystals, the reference states on page 11, lines 29-30 that the abrasion performance decreases as the size of the primary crystals (dendritic structures) increase, thus one skilled in the art would

Art Unit: 1755

have appreciated the size required to optimize the abrasion performance through routine experimentation and optimization.

Claims 1, 2, 6, 7, 11, 12, 15-18 and 22-29 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 20030115805.

U.S. 20030115805 teaches in sections [0023]-[0024], [0057], [0058], [0066], [0077], [0093], [0098], [0103] and [0108]-[0110], fused polycrystalline particles comprising an alpha aluminum oxide crystal phase and an aluminum oxide/yttrium oxide complex (the complex has a garnet structure) crystal phase. The aluminum oxide used is transitional alumina. The fused material has an aluminum oxide content and yttrium oxide content consistent with the instant claims. At least a portion (of the particles comprises alpha alumina having a crystal size greater than 200 nm (i.e. reads on the crystallite size of instant claim 26). The particles have the claimed specified nominal grades and are made by melting and cooling.

The claimed invention is anticipated by the reference because the reference teaches fused polycrystalline particles which comprises all of the claimed components. The reference uses transitional alumina (gamma alumina) and thus, in the final product, some of the alumina will still be in the transitional form absent evidence to the contrary. In addition, the reference defines alpha alumina and this is a transitional alumina.

In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention absent evidence to the contrary because the reference states that the eutectic is made up of an alumina (phase) and this implies any alumina phase making transitional alumina obvious.

Art Unit: 1755

The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

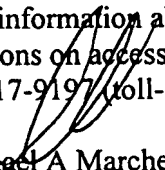
Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM
4/07


Michael A. Marcheschi
Primary Examiner
Art Unit 1755

**Notice of References Cited**

Application/Control No.

10/740,262

Applicant(s)/Patent Under
Reexamination
ANDERSON ET AL.

Examiner

Michael A. Marcheschi

Art Unit

1755

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0115805	06-2003	Rosenflanz et al.	51/307
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Substitute for form 1449A/PTO (modified)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Page 1 of 15

JUN 10 2004

Application Number

10/740262

Filing Date

December 18, 2003

First Named Inventor

Rosenflanz, Anatoly Z.

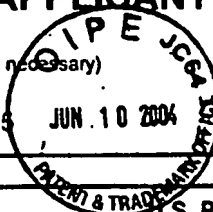
Art Unit

1755

Examiner Name

Attorney Case Number

58716US002

**U.S. Patent Documents**

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
/MM/	A1	US- 659,926	10/16/1900	Jacobs	
	A2	US- 906,339	12/08/1908	Tone	
	A3	US- 960,712	06/07/1910	Saunders	
	A4	US- 1,037,999	09/10/1912	Saunders	
	A5	US- 1,107,011	08/11/1914	Allen	
	A6	US- 1,149,064	08/03/1915	Kalmus	
	A7	US- 1,161,620	11/23/1915	Coulter	
	A8	US- 1,192,709	07/25/1916	Tone	
	A9	US- 1,240,490	09/18/1917	Saunders et al.	
	A10	US- 1,247,337	11/20/1917	Saunders et al.	
	A11	US- 1,257,356	02/26/1918	Hutchins	
	A12	US- 1,263,708	04/23/1918	Saunders et al.	
	A13	US- 1,263,709	04/23/1918	Saunders et al.	
	A14	US- 1,263,710	04/23/1918	Saunders et al.	
	A15	US- 1,268,532	06/04/1918	Allen	
	A16	US- 1,268,533	06/04/1918	Allen	
	A17	US- 1,314,061	08/26/1919	Harrison	
	A18	US- 1,339,344	05/04/1920	Hutchins	
	A19	US- 1,402,714	01/03/1922	Brockbank	
	A20	US- 1,448,586	03/13/1923	Allen	
	A21	US- 1,910,444	05/23/1933	Nicholson	
	A22	US- 2,000,857	05/07/1935	Masin	
	A23	US- 2,424,645	07/29/1947	Baumann, Jr. et al.	
	A24	US- 2,618,567	11/18/1952	Comstock, III	
	A25	US- 2,958,593	11/01/1960	Hoover et al.	
	A26	US- 2,961,296	11/22/1960	Fenerty	
✓	A27	US- 3,041,156	06/26/1962	Rowse et al.	
/MM/	A28	US- 3,141,747	07/21/1964	Marshall	

*Examiner: /Michael Marcheschi/ (04/25/2007)

Date Considered:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 2 of 15	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
/MM/	A29	US- 3,174,871	03/23/1965	Geffcken et al.	
	A30	US- 3,181,939	05/04/1965	Marshall et al.	
	A31	US- 3,216,794	11/09/1965	Roschuk	
	A32	US- 3,377,660	04/16/1968	Marshall et al.	
	A33	US- 3,498,769	03/03/1970	Coes, Jr.	
	A34	US- 3,635,739	01/18/1972	Macdowell et al.	
	A35	US- 3,646,713	03/07/1972	Marshall et al.	
	A36	US- 3,726,621	04/10/1973	Cichy	
	A37	US- 3,781,172	12/25/1973	Pett et al.	
	A38	US- 3,792,553	02/19/1974	Schleifer et al.	
	A39	US- 3,859,407	01/07/1975	Blanding et al.	
	A40	US- 3,881,282	05/06/1975	Watson	
	A41	US- 3,891,408	06/24/1975	Rowse et al.	
	A42	US- 3,893,826	07/08/1975	Quinan et al.	
	A43	US- 3,916,584	11/04/1975	Howard et al.	
	A44	US- 3,940,276	02/24/1976	Wilson	
	A45	US- 3,973,977	08/10/1976	Wilson	
	A46	US- 3,996,702	12/14/1976	Leahy	
	A47	US- 4,035,162	07/12/1977	Brothers et al.	
	A48	US- 4,049,397	09/20/1977	Bockstiegel et al.	
	A49	US- 4,059,417	11/22/1977	Ilmaier et al.	
	A50	US- 4,070,796	01/31/1978	Scott	
	A51	US- 4,073,096	02/14/1978	Ueltz et al.	
	A52	US- 4,111,668	09/05/1978	Walker et al.	
	A53	US- 4,126,429	11/21/1978	Watson	
	A54	US- 4,140,494	02/20/1979	Coes, Jr.	
✓	A55	US- 4,157,898	06/12/1979	Walker et al.	
/MM/	A56	US- 4,194,887	03/25/1980	Ueltz et al.	

*Examiner: /Michael Marcheschi/ (04/25/2007)	Date Considered:
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute for form 1449/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 3 of 15	Application Number	10740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
/MM/	A57	US- 4,238,213	12/09/1980	Pallo et al.	
	A58	US- 4,261,706	04/14/1981	Blanding et al.	
	A59	US- 4,311,489	01/19/1982	Kressner	
	A60	US- 4,314,827	02/09/1982	Leitheiser et al.	
	A61	US- 4,341,533	07/27/1982	Daire et al.	
	A62	US- 4,405,545	09/20/1983	Septier et al.	
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	A65	US- 4,457,767	07/03/1984	Poon et al.	
	A66	US- 4,489,022	12/18/1984	Robyn et al.	
	A67	US- 4,518,397	05/21/1985	Leitheiser et al.	
	A68	US- 4,543,107	09/24/1985	Rue	
	A69	US- 4,584,279	04/22/1986	Grabowski et al.	
	A70	US- 4,588,419	05/13/1986	Caul et al.	
	A71	US- 4,595,663	06/17/1986	Krohn et al.	
	A72	US- 4,623,364	11/18/1986	Cottringer et al.	
	A73	US- 4,652,275	03/24/1987	Bloecher et al.	
	A74	US- 4,734,104	03/29/1988	Broberg	
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	A76	US- 4,741,743	05/03/1988	Narayanan et al.	
	A77	US- 4,744,802	05/17/1988	Schwabel	
	A78	US- 4,751,137	06/14/1988	Halg et al.	
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	A80	US- 4,756,746	07/12/1988	Kemp, Jr. et al.	
	A81	US- 4,762,677	08/09/1988	Dolgin	
	A82	US- 4,770,671	09/13/1988	Monroe et al.	
V	A83	US- 4,780,268	10/25/1988	Papsi et al.	
/MM/	A84	US- 4,799,939	01/24/1989	Bloecher et al.	

*Examiner: /Michael Marcheschi/ (04/25/2007)	Date Considered:
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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 4 of 15	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

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		Doc. Number-(Kind Code If Known)			
/MM/	A85	US- 4,800,685	01/31/1989	Haynes, Jr.	
	A86	US- 4,881,951	11/21/1989	Wood et al.	
	A87	US- 4,898,587	02/06/1990	Mera	
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	A89	US- 4,960,441	10/02/1990	Pellow et al.	
	A90	US- 4,997,461	03/05/1991	Markhoff-Matheny et al.	
	A91	US- 5,007,943	04/16/1991	Kelly et al.	
	A92	US- 5,009,675	04/23/1991	Kunz et al.	
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	A94	US- 5,011,508	04/30/1991	Wald et al.	
	A95	US- 5,013,696	05/07/1991	Greskovich et al.	
	A96	US- 5,023,212	06/11/1991	Dubots et al.	
	A97	US- 5,038,453	08/13/1991	Kurita et al.	
	A98	US- 5,042,991	08/27/1991	Kunz et al.	
	A99	US- 5,085,671	02/04/1992	Martin et al.	
	A100	US- 5,090,968	02/25/1992	Pellow	
	A101	US- 5,094,672	03/10/1992	Giles, Jr. et al.	
	A102	US- 5,110,332	05/05/1992	Isaksson	
	A103	US- 5,118,326	06/02/1992	Lee et al.	
	A104	US- 5,131,926	07/21/1992	Rostoker et al.	
	A105	US- 5,139,978	08/18/1992	Wood	
	A106	US- 5,143,522	09/01/1992	Gibson et al.	
	A107	US- 5,152,917	10/06/1992	Pieper et al.	
	A108	US- 5,185,299	02/09/1993	Wood et al.	
	A109	US- 5,194,072	03/16/1993	Rue et al.	
	A110	US- 5,201,916	04/13/1993	Berg et al.	
V	A111	US- 5,203,884	04/20/1993	Buchanan et al.	
/MM/	A112	US- 5,203,886	04/20/1993	Sheldon et al.	

*Examiner: /Michael Marchesch/ (04/25/2007)	Date Considered:
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 5 of 15	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
/MM/	113	US- 5,227,104	07/13/1993	Bauer	
	114	US- 5,259,147	11/09/1993	Falz et al.	
	115	US- 5,273,566	12/18/1993	Balcar et al.	
	116	US- 5,282,875	02/01/1994	Wood et al.	
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*Examiner: /Michael Marcheschi/ (04/25/2007)	Date Considered:
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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 6 of 15	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

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		Doc. Number-(Kind Code if Known)			
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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 8 of 15	Application Number	10740262
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	First Named Inventor	Rosenflanz, Anatoly Z.
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	Examiner Name	
	Attorney Case Number	58716US002

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/MM/	C53	Waku et al., "A ductile ceramic eutectic composite with high strength at 1,873 K", <u>Nature</u> , Vol. 389, September 1997, pp. 49-52.

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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 13 of 15	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-issue number(s), publisher, city and/or country where published
/MM/	C54	Waku, Yoshiharu, "A New Ceramic Eutectic Composite with High Strength at 1873 K", <u>Advanced Materials</u> , Vol. 10, No. 8, 1998, pp. 615-617.
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	C65	Yajima et al., "UNUSUAL GLASS FORMATION IN THE Al-Nd-O SYSTEM," <u>Chemistry Letters</u> (published by the Chemical Society of Japan), 1973, pp. 741-742
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✓	C67	Yang and Zhu, "Thermo-Mechanical Stability Of Directionally Solidified Al ₂ O ₃ -ZrO ₂ (Y ₂ O ₃) Eutectic Fibers", <u>Scripta Materialia</u> , Vol. 36, No. 8, 1997, pp. 961-965.
/MM/	C68	Yau, W., "Increase in Value of Rare Earth Products Boosts Yixing Xinwei", <u>South China Morning Post</u> , April 12, 2000, 2 pages.

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/MM/	C69	U.S. Patent Application entitled "Fused Al_2O_3 - Y_2O_3 - ZrO_2 Eutectic Abrasive Particles, Abrasive Articles, And Methods Of Making And Using The Same", filed July 19, 2000, Rosenflanz having U.S. Serial No. 09/618,876 (Attorney Docket No. 55763US002). ✓
	C70	U.S. Patent Application entitled, "Method of Making Ceramic Articles", filed August 2, 2002, Rosenflanz having U.S. Serial No. 10/211,481 (Attorney Docket No. 56938US004). ✓
	C71	U.S. Patent Application entitled "Methods of Making Ceramic Particles," filed February 5, 2003, Rosenflanz, having a U.S. Serial No. 10/358772 (Attorney Docket No. 58257US002) ✓
	C72	U.S. Patent Application entitled "Methods of Making Ceramics", filed February 5, 2003, Anderson et al., having a U.S. Serial No. 10/358765 (Attorney Docket No. 58258US002) ✓
	C73	U.S. Patent Application entitled "Ceramics and Methods of Making the Same", filed February 5, 2003, Celikkaya et al., having a U.S. Serial No. 10/358910 (Attorney Docket No. 58325US002) ✓
	C74	U.S. Patent Application entitled " Al_2O_3 - La_2O_3 - Y_2O_3 - MgO Ceramics, and Methods of Making the Same", filed February 5, 2003, Celikkaya et al., having a U.S. Serial No. 10/358855 (Attorney Docket No. 58352US002) ✓
	C75	U.S. Application entitled "Use of Ceramics In Dental And Orthodontic Applications", filed February 5, 2003, having U.S. Serial No. 10/358,856 (Attorney Docket No. 58350US002) ✓
	C76	U.S. Patent Application entitled "Methods of Making Al_2O_3 - SiO_2 Ceramics", filed February 5, 2003, Celikkaya et al. having a U.S. Serial No. 10/358,708 (Attorney Docket No. 58353US002) ✓
	C77	U.S. Application entitled "Use of Glasses Containing Rare Earth Oxide, Alumina, and Zirconia And Dopant In Optical Waveguides", filed April 28, 2003, having U.S. Serial No. 10/425,039 (Attorney Docket No. 58435US002) ✓
	C78	U.S. Application entitled " Methods of Making Ceramic Particles", filed September 5, 2003, having U.S. Serial No. 10/655729 (Attorney Docket No. 58790US002) ✓
	C79	U.S. Application entitled "Methods of Making Ceramics Comprising Al_2O_3 , REO, ZrO_2 and/or HfO_2 and Nb_2O_5 and/or Ta_2O_5 ", filed September 18, 2003, having U.S. Serial No. 10/666615 (Attorney Docket No. 58354US002) ✓
	C80	U.S. Application entitled "Ceramics Comprising Al_2O_3 , REO, ZrO_2 and/or HfO_2 , and Nb_2O_5 and/or Ta_2O_5 , and Methods of Making The Same", filed September 18, 2003, having U.S. Serial No. 10/666212 (Attorney Docket No. 58807US002) ✓
	C81	U.S. Application entitled "Ceramics Comprising Al_2O_3 , Y_2O_3 , ZrO_2 and/or HfO_2 , and Nb_2O_5 and/or Ta_2O_5 , and Methods of Making The Same", filed September 18, 2003, having U.S. Serial No. 10/666,098 (Attorney Docket No. 58961US002) ✓
✓	C82	U.S. Application entitled "Method of Making Abrasive Particles", filed December 18, 2003, having U.S. Serial No. 10/739420 (Attorney Docket No. 58794US002) ✓
/MM/	C83	U.S. Application entitled "Method of Making Abrasive Particles", filed December 18, 2003, having U.S. Serial No. 10/739624 (Attorney Docket No. 58796US002) ✓

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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 15 of 15	Application Number	10/740262
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	First Named Inventor	Rosenflanz, Anatoly Z.
	Art Unit	1755
	Examiner Name	
	Attorney Case Number	58716US002

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/MM/	C84	U.S. Application entitled "Transparent Fused Crystalline Ceramics, And Method of Making The Same", filed December 18, 2003, having U.S. Serial No. 10/739439 (Attorney Docket No. 58797US002) ✓
/MM/	C85	U.S. Application entitled "Method of Making Abrasive Particles", filed December 18, 2003, having U.S. Serial No. 10/739440 (Attorney Docket No. 59437US002)
/MM/	C86	U.S. Application entitled "Method of Making Abrasive Particles", filed December 18, 2003, having U.S. Serial No. 10/740096 (Attorney Docket No. 59438US002)
/MM/	C87	U.S. Application entitled "Method of Making Abrasive Particles", filed December 18, 2003, having U.S. Serial No. 10/73944 (Attorney Docket No. 59439US002)
/MM/	C88	U.S. Application entitled "Powder Feeding Method and Apparatus", filed December 18, 2003, having U. S. Serial No. 10/739233 (Attorney Docket No. 59440US002)
/MM/	C89	U.S. Application entitled "Agglomerate Abrasive Grain and a Method of Making the Same", filed February 11, 2004, having U.S. Serial No. 10/776156 (Attorney Docket No. 55304US016)

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Page 1 of 2

Application Number	10/740262
Filing Date	December 18, 2003
First Named Inventor	Anderson, Thomas J.
Art Unit	1755
Examiner Name	
Attorney Case Number	58716US002

U.S. Patent Documents

Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code If Known)			
/MM/	A1	US- 3,625,717	12/07/1971	Grubba et al.	
	A2	US- 4,316,964	02/23/1982	Lange	
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/MM/	B1	DE	141 420	04/30/1980			X
	B2	EP	0 227 374	07/01/1987			
	B3	EP	0 236 507	09/16/1987			
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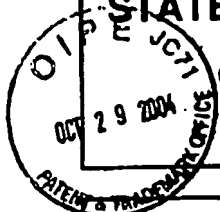
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Page 1 of 1

Application Number	10/740262
Filing Date	December 18, 2003
First Named Inventor	Anderson, Thomas J.
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/MM/	A1	US- 4,111,707	09/05/1978	Komorita et al.	
/MM/	A2	US- 4,789,501	12/06/1988	Day et al.	
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/MM/	B1	JP	60221338	11/06/1985			Abstract
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OTHER DOCUMENTS

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Page 1 of 1

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/MM	A1	US- 3,714,059		01/30/1973	Shaw et al.	
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	A3	US- 3,928,603		12/16/1975	Plesslinger et al.	
	A4	US- 4,218,253		08/19/1980	Dworak et al.	
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	A9	US- 5,213,591		05/25/1993	Celikkaya et al.	
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/MM/	B1	JP	50025608	03/18/1975			X
/MM/	B2	FR	2538370	06/26/1984			X

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/MM/	A1	US- 4,182,437	01/08/1980	Roberts et al.	
/MM/	A2	US- 4,662,199	11/12/1985	Onoyama et al.	
/MM/	A3	US- 4,705,666	11/10/1987	Onoyama et al.	
/MM/	A4	US- 5,215,563	08/01/1993	LaCourse et al.	
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/MM/	C1	Standard: "Standard Specification for Wire Cloth and Sieves for Testing Purposes", ASTM International, Designation: E 11-01, (date unknown but prior to filing date of instant application), pp. 1-5.	
/MM/	C2	Standard: "Nominal Dimensions, Permissible Variations for Wire Cloth of Standard test Sieves (U.S.A.) Standard Series," ASTM International, Designation: E-11, (Date unknown but prior to filing date of instant application), pp.3-6.	
/MM/	C3	Standard: "Standard Specification for Industrial Woven Wire Cloth", ASTM International Designation: E 2018-99, (date unknown but prior to filing date of instant application), pp. 1-30	

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Page 1 of 1

Application Number	10/740282
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/MM/	A1	US- 5,534,843	07/09/1996	Tsunoda et al.	
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/MM/	A3	US- 6,362,119 B1	03/28/2002	Chiba	
	A4	US-			
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Page 1 of 1

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Examiner Name	Unknown
Attorney Case Number	58716US002

U.S. Patent Documents						
Exam Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Doc. Number (Kind Code if Known)				
/MM/	A1	US- 3,637,361	01-25-1972	Kita et al.		
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	A3	US- 4,217,264	08-12-1980	Mable, et al.		
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	A5	US- 5,057,018	10-15-1991	Bowen		
	A6	US- 5,552,213	09-03-1996	Eschner		
	A7	US- 5,733,178	03-31-1998	Obishi		
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	A9	US- 6,306,926 B1	10-23-2001	Bretacher et al.		
✓	A10	US- 2003/0040423 A1	02-27-2003	Harada et al.		
/MM/	A11	US- 2004/0148868 A1	08-05-2004	Anderson et al.		

Foreign Patent Documents							
Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation (Check if yes)
		Ctry. Code	Number-Kind Code (if known)				
	B1						
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OTHER DOCUMENTS			
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	C1		
	C2		
	C3		

*Examiner: /Michael Marcheschi/ (04/25/2007) Date Considered:

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Substitute for form 1449A/PTO (modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) Page 1 of 1	Application Number	10/740262
	Filing Date	December 18, 2003
	First Named Inventor	Anderson, Thomas J.
	Art Unit	1755
	Examiner Name	Michael A. Marcheschi
	Attorney Case Number	58716US002

U.S. Patent Documents						
Exam. Init.*	Cite No.	Document Number		Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)				
/MM/	A1	US-	2,805,166	09-03-1957	Loffler	
	A2	US-	3,947,281	03-30-1976	Bacon	
	A3	US-	4,530,909	07-23-1985	Makishima et al.	
	A4	US-	5,104,319	04-14-1992	Evans et al.	
	A5	US-	5,693,239	12-02-1997	Wang et al.	
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	A12	US-	6,461,988 B2	10-08-2002	Budd et al.	
	A13	US-	6,484,639 B1	11-26-2002	Nordine et al.	
	A14	US-	6,511,738 B2	01-28-2003	Kasai et al.	
/MM/	A15	US-	6,514,892 B1	02-04-2003	Kasai et al.	

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	C3		

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Information Disclosure Statement)

Index of Claims



MAY 17 2007



Application/Control No.

10740,262

Examiner

Michael A. Marcheschi

Applicant(s)/Patent under Reexamination

ANDERSON ET AL.

Art Unit

1755

✓	Rejected
=	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	4/25/07									
	1	✓									
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Bib Data Sheet

CONFIRMATION NO. 1910

SERIAL NUMBER 10/740,262	FILING DATE 12/18/2003 RULE	CLASS 051	GROUP ART UNIT 1755	ATTORNEY DOCKET NO. 58716US002
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APPLICANTS

Thomas J. Anderson, Woodbury, MN;
 Ahmet Celikkaya, Woodbury, MN;

** CONTINUING DATA *****
NONE

** FOREIGN APPLICATIONS *****
NONE

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
 ** 03/31/2004

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance Examiner's Signature _____ Initials _____	STATE OR COUNTRY MN	SHEETS DRAWING 7	TOTAL CLAIMS 58	INDEPENDENT CLAIMS 4
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 ST. PAUL, MN
 55133-3427

TITLE
 Alumina-yttria particles and methods of making the same

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Search Notes

Application/Control No.

10/740,262

Examiner

Michael A. Marcheschi

Applicant(s)/Patent under
Reexamination

ANDERSON ET AL.

Art Unit

1755

SEARCHED

Class	Subclass	Date	Examiner
51	307-309	4/25/2007	MM
501	127	4/25/2007	MM
501	152	4/25/2007	MM
501	153	4/25/2007	MM

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
west and inventor search	4/25/2007	MM

Substitute for form 1449A/PTO (modified)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Page 2 of 2

Application Number	10/740262
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		Ctry. Code	Number-KindCode (if known)				
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/MM/	B11	JP	61099665	05/17/1986			Abstract
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/MM/	B13	JP	06-171974	06/21/1994			X
/MM/	B14	JP	62-003041	01/09/1987			X
/MM/	B15	JP	2003-94414	04/03/2003			X

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	C2	Aguilar et al, "Melt Extraction Processing of Structural Y ₂ O ₃ -Al ₂ O ₃ Fibers", J. Eur. Ceram. Soc. 20 1091-1098 (2000)	
	C3	Gandhi, A.S. and Jarayam, V., "Pressure Consolidation of Amorphous ZrO ₂ -Al ₂ O ₃ by Plastic Deformation of Powder Particles", Acta Materialia, 50 (2002), 2137-2149	
	C4	Gonzalez, Eduardo J., et al., "High Pressure Compaction and Sintering of Nano-Size γ-Al ₂ O ₃ Powder", Materials and Manufacturing Processes Vol. 11, No. 6, 951-967, 1996	
	C5	Jantzen, C.M., Krepski, R.P., & Herman, H., "Ultra-Rapid Quenching of Laser-Method Binary and Unary Oxides", Mat. Res. Bull. 15, 1313-1326 (1980)	
	C6	Khor K.A., "Novel ZrO ₂ -Mullite Composites Produced By Plasma Spraying", Proceedings of the 15 th International Thermal Pray Conference, 25-29 May 1998, Nice, France	
	C7	Ray, C.S. and Day, D.E., "Determining the Nucleation Rate Curve for Lithium Disilicate Glass by Differential Thermal Analysis", J. Am. Ceram. Soc. 73(2) 439-442 (1990)	
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	C9	Sarjeant, P.T. & Roy, R., in <i>Reactivity of Solids</i> (ed. J. W. Mitchell, R.C., DeVries, R.W., Roberts and P. Cannon) 725-33 (John Wiley & Sons, Inc., New York 1969)	
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